

## ABSTRACT

A method of searching a database for a prefix representing a destination address including loading two trees of tables, each tree of tables having a large table at a root branching to small tables and traversing the two tables of trees in parallel to find a match of an entry to the prefix. An entry includes a router pointer representing the destination address and a pointer to a next small table. The small tables include prefix match fields for indexed table entries, a population count of pointers and hidden prefix entries that hold shorter prefix route entry pointers.

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